

Title (en)
SYNCHRONOUS DC-DC CONVERSION

Title (de)
SYNCHRONE GLEICHSTROM-GLEICHSTROM-UMWANDLUNG

Title (fr)
CONVERSION CC-CC SYNCHRONE

Publication
EP 2678929 A1 20140101 (EN)

Application
EP 12749974 A 20120221

Priority
• AU 2011900603 A 20110222
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Abstract (en)
[origin: WO2012113015A1] A synchronous DC-DC converter (300) for converting an input voltage (Vin) into an output voltage (Vout), the converter having a continuous current operative mode (CCM) and a discontinuous current operative mode (DCM), the converter including: an active switch (302) receiving a first gate signal for turning on the active switch for a first time interval (Tq1), the first gate signal having a period (Tprd); a synchronous rectifier (304) receiving a second gate signal for turning on the synchronous rectifier for a second time interval (Tq2); and a controller (306) for determining an estimation (Tq1est) for the first time interval, and thereafter comparing the estimation (Tq1est) with the value of the first time interval (Tq1); wherein responsive to the comparison the controller (306) determines an operative mode of the converter (300) and controls the second time interval (Tq2) depending on the determined operative mode.

IPC 8 full level
H02M 3/158 (2006.01)

CPC (source: EP US)
H02M 3/156 (2013.01 - EP US); **H02M 3/157** (2013.01 - EP US); **H02M 3/1588** (2013.01 - EP US); **Y02B 70/10** (2013.01 - EP US)

Cited by
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